Facilitators' Report

Regarding the

Channel Islands National Marine Sanctuary

Marine Reserves Working Group

Prepared for

Channel Islands National Marine Sanctuary

Sanctuary Advisory Council

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Introduction

This Facilitator's Report has been prepared to aid the Channel Islands National Marine Sanctuary Advisory Committee (SAC) in making a recommendation regarding Marine Reserves within the Sanctuary waters. It is being provided to the SAC in place of a Consensus Recommendation from the Marine Reserves Working Group (MRWG) because the MRWG was unable to reach consensus on a single comprehensive recommendation regarding marine reserves, consistent with its own ground rules which required unanimity among its members for a recommendation to be made.

This report has been prepared by the facilitation team that provided neutral assistance and support to the MRWG over its twenty-two (22) month effort to "consider the potential establishment of marine reserves within the Channel Islands National Marine Sanctuary area." During this time, the MRWG sought "to collaborate to seek agreement on a recommendation to the Sanctuary Advisory Council by using the best ecological, socioeconomic, and all other available information."

As per its ground rules, since the MRWG was unable to achieve unanimity in its recommendation, the facilitation team was tasked with identifying the areas of agreement and disagreement that characterized the MRWG efforts toward reaching a consensus recommendation. We have also sought to provide some observations on the process used to seek agreement and the value derived from the hard work that each and every member of the MRWG invested in defining issues, crafting a problem statement, identifying options and seeking agreement.

This report has been prepared subsequent to the last formal meeting of the MRWG that took place on May 16, 2001. Therefore, it has not been reviewed by members of the Working Group. Accordingly, it represents the perspectives of the facilitation team and not necessarily those of the members of the MRWG itself. In crafting this report, the facilitation team has used its best efforts to objectively and independently convey the outcomes that emerged from nearly two years of collaborative listening, information collection and evaluation, constituent outreach, public forums, and interest-based negotiation.

While the MRWG was not able to achieve unanimity on a comprehensive recommendation to the SAC, this should not be interpreted as either a lack of effort or a failure of the process. As professional facilitators, we observed the working group:

- Develop a better understanding of each others perspectives and interests;
- Develop a better understanding of both the substance and process of marine resource policy making;

- ❖ Develop and improve working relationships among and between traditionally opposing interest groups;

- ❖ Generate proposals that were more responsive to a multitude of interests rather than responding to more narrow or limited interests; and,

- ❖ Frame the relevant marine reserve issues in a manner that will inform and help facilitate the development of a recommendation by the SAC to the Sanctuary Manager, the California Fish and Game Commission, and the National Oceanic and Atmospheric Administration, as the state and federal stewards of Sanctuary waters.

Process Background

In 1999, the California Fish and Game Commission received a request from the Channel Islands Marine Resource Restoration Committee and the Channel Islands National Park to create a network of marine reserves within the Channel Islands National Marine Sanctuary. In response to this request the Channel Islands National Marine Sanctuary and the California Department of Fish and Game developed a joint federal and state process to consider establishing marine reserves in the Sanctuary. The Channel Islands National Marine Sanctuary Advisory Council (SAC) appointed the Marine Reserves Working Group (MRWG) in July 1999, to consider the establishment of marine reserves within the Sanctuary. The MRWG membership was designed to represent the full range of community perspectives. Members included representatives of the public-at-large, commercial fishing, recreational fishing and diving interests, and non-consumptive interests. The MRWG is presently comprised of 16 members[1], including five members from the SAC.

Because the MRWG was not able to arrive at a recommendation by consensus (i.e. unanimity), the SAC is now charged with evaluating their areas of agreement and disagreement and crafting its own recommendation to the Sanctuary Manager. The paragraphs that follow are intended to facilitate that process through delineating what was and was not accomplished during the tenure of the MRWG. It is our understanding that the SAC will develop a recommendation based in part on the insights gained from the MRWG process and forward it to the Sanctuary Manager as formal advice. The Sanctuary Manager and the California Department of Fish and Game (DFG) Marine Region Manager will then submit a recommendation to the California Fish and Game Commission, Pacific Fisheries Management Council, and the National Oceanic and Atmospheric Administration for consideration. Because the MRWG did not achieve consensus on a recommendation, there is no final "product" to be evaluated by its advisory bodies - the Science

[1] The MRWG was originally appointed with 17 members. One of the non-consumptive representatives withdrew from the process in early 2001. That open seat was not filled by the remaining caucus of non-consumptive, conservation representatives on the MRWG.

Panel and the Socioeconomic Team. Therefore, only the preliminary findings of these advisors regarding various options considered by the MRWG during the course of its deliberations will be provided to the SAC. In addition, the meeting notes of the three public forums held will also inform the SAC regarding the range of perspectives on the size, location and specifics of potential reserve areas.

Substantive Areas of Agreement

Overview

The MRWG did come to a series of general agreements in concept, even though it was not able to achieve unanimity on a recommendation regarding reserve size, design, location and administration. At its final meeting on May 16, 2001 the MRWG agreed to forward to the SAC those substantive agreements that did garner the full support of the group. Those agreements focused on the following six topics:

- Ground Rules
- Mission Statement (Reaffirming the SAC's direction to the MRWG)
- Problem Statement

- Issues of Concern
- Goals and Objectives
- Implementation Recommendations

Areas where the MRWG could not achieve consensus centered around the size and location of marine reserves, possible phasing-in of marine reserves, possible designation of "limited take" areas, and how to integrate potential reserves with current and anticipated fisheries management actions in the CINMS region . The pages that follow review points of agreement reached by the MRWG. Consensus language is indicated in *italics*.

Ground Rules: The MRWG reached agreement on a set of Ground Rules that provided a common understanding about the purpose of the MRWG process and established a basis for constructive communication with each other as well as decision-making, and the day-to-day working group operations (See Attachment A)

Mission Statement: The MRWG agreed to the following consensus language regarding a its mission:

> *Using the best ecological and socioeconomic and other available information, the Marine Reserve Working Group (MRWG) will collaborate to seek agreement on a recommendation to the Sanctuary Advisory Council regarding the potential establishment of marine reserves[2] within the Channel Islands National Marine Sanctuary area.*

Problem Statement: The MRWG agreed on a problem statement to guide the development of goals and objectives for marine reserves. This problem statement sought to answer the question "If marine reserves are the solution, what is the problem?" that was posed by many in attendance at the first Public Forum. By agreeing on a problem statement, the MRWG was able to frame the question of "why" consider the establishment of marine reserves. By taking this approach, the problem statement:

- Enhanced the legitimacy of the process;
- Encouraged collaboration among a broad alliance of interests;
- Engaged stakeholders and their constituencies in the process;
- Served as a "touchstone" for productive dialogue;
- Identified the implications of non-agreement and maintaining the "status quo"
- Established a focus on the future of the Channel Islands marine ecosystem;
- Framed the problem to be addressed; and
- Minimized misinterpretations regarding the purpose for collaborating.

[2] A marine reserve is defined as a "No Take" zone.

When difficult situations emerged, the problem statement was used to refocus the participants on a constructive approach to changing the status quo. The MRWG agreed to the following consensus language regarding a Problem Statement:

Problem Statement

The urbanization of southern California has significantly increased the number of people visiting the coastal zone and using its resources. This has increased human demands on the ocean, including commercial and recreational fishing, as well as wildlife viewing and other activities. A burgeoning coastal population has also greatly increased the use of our coastal waters as receiving areas for human, industrial, and agricultural wastes. In addition, new technologies have increased the efficiency, effectiveness, and yield of sport and commercial fisheries. Concurrently there have been wide scale natural phenomena such as El Nino weather patterns, oceanographic regime shifts, and dramatic fluctuations in pinniped populations.

In recognizing the scarcity of many marine organisms relative to past abundance, any of the above factors could play a role. Everyone concerned desires to better understand the effects of the individual factors and their interactions, to reverse or stop trends of resource decline, and to restore the integrity and resilience of impaired ecosystems.

To protect, maintain, restore, and enhance living marine resources, it is necessary to develop new management strategies that encompass an ecosystem perspective and promote collaboration between competing interests. One strategy is to develop reserves where all harvest is prohibited. Reserves provide a precautionary measure against the possible impacts of an expanding human population and management uncertainties, offer education and research opportunities, and provide reference areas to measure non-harvesting impacts.

Issues of Concern: Early on in the process, the MRWG agreed to the consensus language regarding Issues of Concern. The following language was instrumental in guiding the development of goals and objectives that occurred later in the process.

Issues of Concern

The Working Group identified the following key issues of concern that needed to be addressed in developing its recommendation regarding marine reserves in the Channel Islands National Marine Sanctuary.

- ***Status of Resources:*** *There was an interest in quantitatively assessing how the combination of anthropogenic influences and natural variability have led to changes over time in the distribution and abundance of the species of interest that are indicative of the status of the ecosystems and fisheries of the Channel Islands.*
- ***Social / Economic / Ecological Considerations:*** *There was an interest in achieving marine resource conservation while minimizing socioeconomic*

impacts to the marine fisheries industry as well as fairly allocating the risks and benefits among consumptive and non-consumptive users.

- ***Evaluation:*** *There was an interest in avoiding the repetition of mistakes made in the development of other marine reserves and in future scientific monitoring to assess the long-term effectiveness of the proposed reserve(s).*
- ***User Profiles:*** *There was an interest in identifying all relevant user-groups and their respective areas of primary operation in order to quantitatively assess the principle economic activities and related interests in the Channel Islands.*
- ***Reserve Design:*** *There was interest in identifying the specific spatial extent of any potential reserve (s) and in determining whether there would be any temporal variation regarding reserve size and location.*
- ***Reserve Administration:*** *There was an interest in seeing the development of a comprehensive interagency management strategy for reserve(s) and in determining how reserve management would operate in terms of enforcement and administrative procedures.*

Goals and Objectives: Considerable time was invested in developing and refining a set of goals and objectives to provide guidance to the Science Panel and Socioeconomic Team as well as to themselves in the development of a network of marine reserves. The goals and objectives were developed to answer the question of "what" is the desired future state of the Channel Islands marine ecosystem, as well as "what" are the measurable outcomes for evaluating progress and success in moving toward that future desired condition. Through additional input from the Science Panel, the Socioeconomic Panel, existing marine protected area legislation and policies, and further interactive discussion among members, the following Goals and Objectives for marine reserves in the Channel Islands were refined and agreed upon.

Goals and Objectives for Marine Reserves in the Channel Islands[3]

Ecosystem Biodiversity Goal:

To protect representative and unique marine habitats, ecological processes, and populations of interest.

Objectives -

1. *To include representative marine habitats, ecological processes, and populations of interest.*

[3] In developing and adopting these goals and objectives, the MRWG has adopted the following operational definitions:

Goal: A broad statement about a long-term desired outcome that may, or may not be completely obtainable.

Objective: A measurable outcome that will be achieved in specific timeframe to help accomplish a desired goal.

2. *To identify and protect multiple levels of diversity (e.g. species, habitats, biogeographic provinces, trophic structure).*
3. *To provide a buffer for species of interest against the impacts of environmental fluctuations.*
4. *To identify and incorporate representative and unique marine habitats.*
5. *To set aside areas which provide physical, biological, and chemical functions.*
6. *To enhance long-term biological productivity.*
7. *To minimize short-term loss of biological productivity.*

Socio-Economic Goal:

To maintain long-term socioeconomic viability while minimizing short-term socioeconomic losses to all users and dependent parties.

Objectives

1. *To provide long-term benefits for all users and dependent parties.*
2. *To minimize and equitably share short-term loss in activity for all users and dependent parties.*
3. *To maintain the social and economic diversity of marine resources harvest by equitably sharing the loss of access to harvest grounds among all parties to the extent practicable when designing reserves.*
4. *To address unavoidable socioeconomic losses created by reserve placement through social programs and management policy.*

Sustainable Fisheries Goal:

To achieve sustainable fisheries by integrating marine reserves into fisheries management.

Objectives -

1. *To increase abundance, distribution, reproductive capacity and individual sizes of harvested populations within marine reserves in the Channel Islands region.*
2. *To facilitate rebuilding and sustaining harvested populations.*
3. *To enhance spillover into non-reserve areas.*
4. *To establish a recognition program for sustainable fisheries in the Channel Islands region.*

Natural and Cultural Heritage Goal:

To maintain areas for visitor, spiritual, and recreational opportunities which include cultural and ecological features and their associated values.

Objectives -

1. *To conserve exceptional ecological and cultural resources that stimulate and encourage human interaction with the marine environment and promote recreational activities.*
2. *To conserve outstanding areas that encompass seascape, adjoining coastal landscapes, or possesses other scenic or visual qualities.*
3. *To maintain submerged remnants of past life that are of special historical, cultural, archeological, or paleontological value.*
4. *To maintain areas of particular importance that support traditional non-consumptive uses.*
5. *To maintain opportunities for outdoor recreation as well as the pursuit of activities of a spiritual or aesthetic nature.*
6. *To facilitate ease of access to natural features without compromising their value or uniqueness*

. ***Education Goal***

To foster stewardship of the marine environment by providing educational opportunities to increase awareness and encourage responsible use of resources.

Objectives -

1. *To develop and distribute offsite interpretations and displays allowing indirect observation, study and appreciation of marine resources.*
2. *To provide current pamphlets, project ideas and worksheets for use on and offsite.*
3. *To promote personal and organized visits for direct observation and study.*
4. *To link monitoring and research projects to support classroom science curriculum.*

Implementation Recommendations: In addition to the goals and objectives that the MRWG developed, the group also identified an additional set of suggestions related to the question of "how". In coming to closure on these recommendations, the MRWG sought to anticipate some of the difficulties related to the implementation or execution of reserve and identify matters that should be taken into account in that process, as well as relevant procedures or protocols for maximizing their success and effectiveness.

Implementation Recommendations

The following "implementation recommendations" have been adopted to compliment the above goals and objectives for marine reserves and to provide additional guidance and clarification to stakeholders, management agencies, user groups and members of the broader "maritime community," as the details of program implementation are refined and put in to place.

MONITORING, EVALUATION, AND ASSESSMENT RECOMMENDATIONS

Purpose:

1. *To understand ecosystem functions in order to distinguish natural processes from human impacts;*
2. *To monitor and evaluate the short- and long-term effectiveness of reserves for managing living marine resources including harvested populations;*
3. *To widely publicize the results of findings of monitoring and evaluation efforts.*

For Biodiversity:

1. *Design reserves that will be tractable for monitoring of biological and physical processes;*
2. *Establish long-term monitoring of ecological patterns and processes in, adjacent to, and distant from marine reserves;*
3. *Evaluate short- and long-term differences between reserve and non-reserve areas;*
4. *Study the effects of marine mammal predation on marine populations in, adjacent to and distant from reserves;*
5. *Provide for water quality testing near and distant from reserves;*
6. *Monitor ecosystem structure and functioning along gradients of human activities and impacts;*
7. *Develop methods for evaluating ecosystem integrity.*

For Fisheries Management

1. *Evaluate the short- and long-term effectiveness of reserves as an integrated fisheries management tool;*
2. *Develop and adopt a monitoring, evaluation and data management plan for goals and objectives that explicitly contribute to "adaptive management;*
3. *Provide long-term continuity in effort, expertise, and funding during reserve monitoring and evaluation;*
4. *Establish long-term resource monitoring programs in, adjacent to, and distant from reserves;*
5. *Monitor impacts of reserves on commercial and recreational industries;*
6. *Provide for the systematic study of near shore species, including (1) larval export, (2) adult migration, (3) relative abundances, (4) size-frequency distributions, and (5) other topics of interest, for stock assessment purposes;*
7. *Monitor reserves to test their ability to:*
    - *Replenish and recover marine populations of interest including harvested populations;*
    - *Export larvae and adult individuals to areas outside reserve boundaries;*
    - *Document changes of catch characteristics of users adjacent to and distant from reserves;*
    - *Study and evaluate the effects of predators on marine populations in, adjacent to, and distant from reserves.*

For Socioeconomic Impacts:

1. *Provide an opportunity to monitor and evaluate the benefits and impacts to all users and dependent parties inside, adjacent to, and distant from reserves.*

For Data Management

1. *Create and adopt interagency memoranda of understanding to define integrated management framework, responsibilities and accountability;*
2. *Seek commitments of adequate resources of time, funding, and expertise to assure adequate and ongoing monitoring, synthesis, interpretation, and reporting of information;*
3. *Undertake preliminary surveys to provide baseline information to gauge reserve performance;*
4. *Design monitoring strategies to produce definitive results through an explicit reporting process including clearly stated monitoring objectives to address priority issues, and quality assurance programs to ensure that type, amount, and quality of data meets research objectives;*
5. *Design a data management program that provides mechanisms to ensure data is processed, summarized, and reported to concerned individuals, organizations and agency representatives in an easily understood format on a regular (e.g., bi-annual) basis. Seek an ongoing funding base to maintain adequate data management capacity;*
6. *Design and implement a program for dissemination of information from ongoing studies in a useable and accessible format that can provide information for better environmental protection and management;*
7. *Design the monitoring and evaluation program with built in mechanisms for periodic review and that allows for program adjustments that are responsive when monitoring results or new information from other sources justifies program refinement.*

RESERVE ADMINISTRATION RECOMMENDATIONS:

Purpose:

To effectively respond to the "Problem Statement" and achieve the goals and objectives of this program of marine reserves through:

1. *Effective agency coordination and accountability*
2. *Community oversight*
3. *Data management*
4. *Adequate funding*
5. *Appropriate enforcement practices*

Agency Coordination and Accountability:

1. *Create and adopt interagency Memoranda of Understanding (MOU), Memoranda of Agreement (MOA), or other means to memorialize agency commitment to the marine reserves program by the California DFG, CINMS, NMFS, FWS and NPS and other responsible agencies with jurisdiction.*
2. *Develop procedures to insure and maintain consistent interpretation, application and enforcement of regulations across agencies.*
3. *Continue efforts to protect the intent of these reserves from outside intervention and changes.*

Community Oversight:

1. *Convene a standing community oversight committee to review implementation, the effectiveness of reserve administration and monitoring, and to ensure that community concerns can be expressed and addressed.*

Funding:

1. *Develop cooperative interagency agreements (among CINMS, CINP, DFG and NMFS, and other agencies) to seek and commit annual funding and other in-kind assistance to support reserve administration.*
2. *Provide operational support and seek a dedicated funding stream to implement and maintain: marine reserve design, research, monitoring, and evaluation.*
3. *Develop a protocol in which each agency annually reports its contributions to the CINMS or other designated "lead" agencies reserve administration.*
4. *Explore the utilization of non-profit, research, and academic organizations and other implementation strategies as methods of institutionalizing long-term program funding.*

Enforcement:

1. *Develop an enforcement Memorandum of Understanding (MOU) and cooperative interagency enforcement plan with the NMFS, DFG, CINP, CINMS, and Coast Guard.*
2. *Design clear and discernable reserve boundaries.*
3. *Enlist community participation in marine reserve management and enforcement in order to maximize the cost-effectiveness of the enforcement program.*
4. *Provide operational support and seek a dedicated funding stream to maintain an active presence on the water and in the air.*
5. *Develop explicit regulations and restriction that are clear and consistently interpreted.*
6. *Use "state of the art" enforcement resources, reserve dedicated officers, and vessels.*
7. *Allow the transit of vessels with fish through reserves at any time, as long as no gear is in the water.*
8. *Allow anchoring of vessels with fish in marine reserves as permitted by Federal law or in case of emergency caused by hazardous weather.*
9. *Allow for limited take associated with research, monitoring and adaptive management of this network of marine reserves.*

Education Recommendations:

1. *Create a (CINMS, DFG, FWS, NPS, and others) team of educators to create a coordinated plan with input from the community for the development of interpretive programs, multimedia products, signs, brochures, and curriculum materials related to marine reserves.*
2. *Develop a training program for staff and volunteers from the above agencies so that they have the tools and information they need to provide interpretation about marine reserves to the general public.*
3. *Integrate marine reserves educational materials into existing educational programs such as Sanctuary Naturalist Corps, Sanctuary Cruises, Great American Fish Count, etc.*

4. *Incorporate data from marine reserve research and monitoring projects into science curriculum materials and hold workshops to present this information to teachers.*
5. *Develop interagency Web site for Channel Islands Marine Reserves that is a portal to best available and most current information about marine reserves that could be used by the general public and school audiences*
6. *Develop a program for organized public educational visits (such as diving, whale watching, nature photography, etc.) to marine reserves for direct observation and study.*
7. *Seek funding for interagency efforts described above.*

Outstanding Unresolved Issues

Consistent with the MRWG's Ground Rules, there are several unresolved issues that the group wanted to share with the SAC. Resolution of these issues was elusive to the MRWG, in part because in certain cases, these issues were framed such that the gains to one interest group were viewed as losses to at least one or more other caucus of interests. Efforts by the Facilitation Team to transform these positions into broader interests or as components of a package of proposals were not successful. This section of the Facilitators' Report is intended to provide the SAC with our insights regarding what the MRWG could not agree on and the competing interests underlying those issues.

1. **Size of Reserves:** While efforts were made to avoid focusing primarily on reserve size as the basis for a recommendation, input from the Science Panel largely defined the success of reserves in terms of size. Efforts by the facilitation team and others to introduce other variables such as phasing, limited take areas and integrated fisheries management into the "conversation" did not create sufficient agreement to resolve the issue of reserve size. The following perspectives appear at odds at this time:

Perspective	Interest	Proposals to Date:
Reserves should initially be limited in size until their benefits, especially spillover benefits, can be adequately demonstrated.	Minimize economic hardships on consumptive users. Maintain access to key important traditional areas of use.	7% Set-aside 14% Set-aside
Set aside 20-30% of high quality habitat within the Sanctuary as a initial Phase of marine reserves. Provide consumptive users additional time to adapt to the closures and through adaptive management over time, increase the area to 30+% per the Science Panel's recommendation.	Make significant scientifically defensible progress towards achievement of the goals and objectives for marine reserves and build community support for additional expansions through adaptive management.	
Reserves must cover at least 30% of the Sanctuary to be successful, as defined by the Science Panel.	Minimize environmental risk at the expense of short-term adverse economic impacts to consumptive users	30+% Set-aside 28% Set-aside
Reserves should be at least 30% plus an additional 1.2 – 1.8X"insurance" multiplier. Anything less could fail to protect species if natural or manmade disasters cause significant harm to ecosystem health and functions.	Eliminate environmental risk at the expense of adverse economic impacts to consumptive users.	36-48% Set aside

Facilitation Team Observation: A primary focus on reserve size (i.e., percentage set-aside) will not likely lead to a consensus agreement because the gains to one or more stakeholder groups are construed as losses to other groups and because stakeholder options away from

the negotiating table appear better to each side than compromise on this issue. This issue can probably only be resolved by higher-level policy decisions or by negotiating other combinations of proposal elements in place of a "size-driven" outcome.

2. **Location of Reserves:** Generally, the discussion of the location of specific areas for reserves has been driven by a combination of desire for quality habitat and accessibility (either distance from port, or safety of access). While there may be general agreement that areas that are difficult to access that also contain quality habitat are well suited for reserves, that approach becomes more problematic as one moves from west to east toward Santa Cruz (north side), Anacapa and Santa Barbara Islands. The following perspectives kept the MRWG from consensus:

Perspective	Interest	Proposals to Date:
Santa Barbara and Anacapa Islands are used extensively by sport fishermen (and for Anacapa by recreational divers) from throughout Ventura and Los Angeles Counties and should not be off limits. Access to Santa Barbara has already been severely limited by the Cow Cod Conservation closure.	Maintain some areas easily accessible to _ and _ day charter boats.	No reserves what so ever on Santa Barbara or Anacapa Islands.
Sport fishermen and squid fishermen use the north side of Santa Cruz Island; very limited reserve areas should be set aside along this portion of the Island.	Maintain some areas easily accessible to _ and _ day charter boats. Balance the placement of reserves so that squid harvesting is not disproportionately impacted	If reserves are absolutely necessary in this area, they should only extend out to the 20 fathom depth, leaving the remainder either open entirely or open to some limited take by recreational fishermen and possibly some types of low impact commercial fishing.
Commercial fishermen utilize the northwest portion of San Miguel, weather permitting.	Maintain some areas accessible to shrimp trawlers and other commercial uses.	The placement of reserves should not extend beyond three miles from the elbow to Wilson Rock
The placement of reserves should not be such that it significantly impacts existing kelp harvesting lease areas. Kelp harvesting is a renewable resource and only impacts the top six feet of the water column.	Balance the placement of reserves so that kelp harvesting is not disproportionately impacted.	Allow limited kelp harvesting in selected reserve areas which are situated in locations that are critical to the economic viability of the kelp harvest industry.
Adequate habitat should be fully protected in a replicate manner in all three bio-geographic provinces	The placement of reserves needs to provide for sufficient representation of the full range of habitats in amounts sufficient to meet identified sustainability and biodiversity goals	Set aside quality habitat areas on both the north and south sides of islands in the Oregonian, Californian and Transitional provinces.

3. **Use of "Limited Take" areas to compliment or substitute for "No Take" Reserves:** Proposals were offered by some Working Group members to allow for different types of "limited take" in some areas. Various types of "limited take" were considered, such as recreational "catch and release" fishing for pelagics; restrictions on certain kinds of recreational fishing tackle and commercial fishing gear; and access to recreational fishing as well as certain commercial fisheries that are cause less impacts to habitat, but closure to the commercial finfish fishery. Such areas might equate to the concept of Marine Conservation Areas as defined by the Marine Life Management Act (MLMA) process.

   The basis for these proposals is that some MRWG members felt that such measures would not significantly impact stocks identified as being in decline, and they would still allow some recreational and commercial activities adjacent to no-take reserves.

Perspective	Interest	Proposals to Date:
Allow limited-take/catch & release areas instead of or for credit toward the total percent set aside of marine reserves	Allow for the commercial and recreational benefits of limited impact fisheries of non-threatened species that do not directly require or benefit from no take reserves.	Some discussion as a possible option on the north sides of Santa Cruz and Anacapa Islands.
Allow "recreational only" areas where sport fishing is allowed but commercial fishing is not.	Give preferential treatment to recreational fishing to compensate for other areas set aside for no-take reserves.	No specific proposals offered to date.
Allow for recreational-only, catch & release areas only as a interim measure, prior to designating such areas as Phase II "no-take" reserve areas	Utilize phasing as a method of distributing or minimizing economic hardship and adverse impacts to users over time.	Some discussion as a possible option on the north sides of Santa Cruz and Anacapa Islands.
Do not allow any credit for limited take/catch & release areas toward marine reserves	Preclude unanticipated impacts on biodiversity and predator/prey relationships of an intact marine ecosystem; the Science Panel's recommendation assumes reserves are "no-take" – catch & release is a form of "take".	N.A.

   It appears that the designation of limited take areas could provide selective benefits to sport fishing and/or certain commercial fishing interests without significantly affecting non-consumptive conservation interests. If satisfactorily sized reserves are also established, this approach may hold promise in realizing the hoped for long-term spillover benefits of reserves, particularly if the limited take areas are located adjacent to no-take reserves.

4. **Relative Weighting of Advice from Science Panel and Socioeconomic Team** – There was a significant divergence of opinion regarding the relative importance of advice from the two advisory bodies to the MRWG. The facilitation team had sought to establish a system of aggregating individual stakeholders' preferences for how to weigh socioeconomic factors in relation to the advice and recommendations of the Science Panel. The Working Group as individuals and as a group, however, were unwilling to establish the relative weight that should be given to the advice of the two bodies. Some members were of the opinion that because the process was established from the outset as a "science-based" process, that the recommendations of the Science Panel should take precedence over those of the Socioeconomic Team. Other members expressed the perspective that both bodies were advisory in nature, and that it was the responsibility and role of the MRWG itself to "balance potentially conflicting perspectives and make an independent judgment based upon both sets of data." Both perspectives are supported by the MRWG's Ground Rules. However, neither "position" moved the full group toward common ground.

5. **Phasing of Reserves:** The MRWG engaged in meaningful discussion of the role of phasing as a method of establishing marine reserves over time. This particular approach presents a series of nested options for consideration. There is general agreement that phasing could be an acceptable method of implementing marine reserves that would spread out the potential socioeconomic impacts on user groups over time. The issues center around: 1) the size of the initial phase, 2) the certainty of future phases, and 3) the use of performance standards or criteria to determine the specific implementation of subsequent phases. All three issues are underlain by a desire for marine reserves to be successful.

   The Size of the Initial Phase: One perspective expressed was that for reserves to be successful, they need to be initiated by setting aside a sufficient percentage of the total area to ensure a high probability of succeeding in ultimately meeting the goals established by the Working Group. Another perspective was that the initial size of reserves should be one that would minimize the economic impact to user-groups. Over time perhaps, the size of reserves could increase to a size that would have a higher probability of success in regards to enhancing the distribution and abundance of species of concern.

   The Certainty of Future Phases: A concern expressed by several MRWG members was that if a phased reserve network began too small, it would not be effective in producing the desired biological effects on the species of concern. Thus, if the desired biological effects cannot be produced and clearly demonstrated by a small Phase I reserve, then a larger Phase II reserve would never be implemented.

Use of Performance Standards or Criteria to affect the specifics of Subsequent Phases: One concern expressed regarding the use of performance standards was that criteria might be developed that would cause the biological effects of reserves to appear not as pronounced and thereby reduce the probability that larger phases of reserves would be implemented. Another perspective regarding the use of performance standards was that criteria could be developed that would cause the biological effects of reserves to appear more pronounced and thereby increase the probability that larger phases of reserves would be implemented over time. In order to promote constructive dialogue, the nature of appropriate performance standards would need to be discussed and agreed. Without time to more fully consider and define appropriate performance criteria, the MRWG members tended to respond to this concept from their own worst-case scenario perspective.

6. **Integration of Fisheries Management Outside Reserves**: During the course of the MRWG's deliberations, additional fisheries management strategies have been proposed and/or implemented by state and federal authorities outside of the MRWG process. Some on the MRWG had the perspective that fisheries management actions implemented outside by near the CINMS area should be considered when determining the spatial extent of a reserve system. That is, if areas are closed to certain fisheries south of the CINMS border, then that should be taken into account, and not as much emphasis needs to be placed on the area within the CINMS in regards to establishing no-take reserves.

   Others on the MRWG felt that new management actions and strategies should be acknowledged and considered when designing a reserve system within the CINMS. Such consideration might allow for not fully meeting the Science Panel's minimum 30% set aside recommendation.

   Yet others on the MRWG felt that the Science Panel's 30-50% recommendation applied to CINMS as a discrete management unit unto itself, without regard to other closures outside its boundaries.

   Thus, these differences in perspective stem from the way in which different people perceive how fisheries management strategies outside of the CINMS will affect the resources within the Sanctuary.

Maps Generated by the MRWG:

A total of 30 maps of potential marine reserve scenarios and proposals were generated by the MRWG over its 22-month tenure. Support staff from the Channel Islands National Marine

Sanctuary (as well as the Science Panel and Socioeconomic Team) provided extensive technical support and analysis that complimented these mapping efforts, through the development and application of GIS and Decision Support Tools.

Formal mapping efforts took place immediately following the consensus on the MRWG's Goals and Objectives in August, 2000. The table below provides an overview of the range of options developed, their purpose and context, and the resultant outcome of MRWG efforts specific to those maps.

Timeframe	Maps Developed	Context	Outcome
September 27, 2000	10 initial marine reserve ***Concepts*** (Maps A1, B1, B2, B3, C1a, C1b, D1, D2, & D3) developed by small heterogeneous MRWG sub-groups for refinement by full MRWG	Provide the basis for negotiating goal-oriented options among divergent interest groups within the MRWG; identify pros and cons for range of interest groups.	Utilized for analytical purposes to evaluate ability to meet both social, economic and ecological goals; not pursued as viable proposals for formal consideration
October 18, 2000	5 additional marine reserve ***Scenarios*** (Maps A, B, C, D, & E) developed by small homogeneous, self-selecting groups for refinement by full MRWG	Build upon initial set of maps and identify areas from which to negotiate a proposed network of reserves that was responsive to full range of interests	Provided a basis for soliciting feedback from constituent groups.
February 21, 2001	4 proposed marine reserve ***Options*** (Maps A-D) developed by full MRWG, with audience input.	Maps developed for feedback and evaluation from Science Panel, Socioeconomic Team and general public	Science Panel and Socioeconomic team provide technical analysis of implications of each map; pubic forum held to receive input on each map.
April 18, 2001	MRWG identifies four **additional scenarios** (E, F, G, H) and identifies one non-consensus-based map (I) as representing the overlap of potential marine reserve proposals. MRWG reaches impasse on a proposal to send forth to SAC.	Maps developed in response to advisory input from Science Panel, Socioeconomic team, and general public; represented an attempt to find common ground, and reflect constituent group input as well.	No Consensus achieved among full MRWG.
April 19, 2001 - May 15, 2001	MRWG members negotiate additional scenarios (J, K, L, M, N, O) outside of meeting in small groups with intention of achieving consensus	Further efforts to negotiate common ground and integrate other dynamics including phasing, areas of limited take, fisheries	No Consensus achieved among full MRWG.

Timeframe	Maps Developed	Context	Outcome
		management and other factors into a map that is agreeable to all MRWG members..	
May 16, 2001	MRWG reaches formal impasse on a recommendation and sends forward two maps to SAC, neither of which received a full consensus. Each map represents, the "resistance point" of consumptive vs. non-consumptive interests.	Deadline for agreement reached; parties identify their bottom lines for mapping purposes and identify areas of overlap but not consensus	Impasse formally acknowledged; MRWG forwards one composite map (depicting areas of overlap and non agreement) to the SAC representing divergent perspectives, neither of which could garner consensus from the group as a whole.

The composite map forwarded to the SAC and depicted below represents the best effort that each of the consumptive and non-consumptive interests could propose and remain true to their constituent groups. The two areas depicted on this map represents the "resistance point"[4] of each caucus of interests - that combination of reserve locations and size configurations beyond which they and/or their constituent group(s) could not support.

For those representing conservation interests, Map E represented the minimum level of habitat set-aside and spatial extent that could be supported. For those representing consumptive interests, the map depicting Areas of Overlap represented their maximum level of habitat set-aside and spatial extent. Neither of these two proposals contains elements for dealing with phasing, areas of limited take or integration of fisheries management issues.

[4] In the field of Negotiation Analysis, a resistance point or reservation value is a negotiator's bottom line, beyond which alternatives to a negotiated settlement (walking away, letting someone else decide, pursuing more other methods of dispute resolution) are more attractive than agreeing on an outcome negotiated by the parties themselves.